

Docket No. 03-03 US

## REMARKS

**Election per 35 USC 121**

The examiner references the provisional election with traverse to Group I, claims 1-15 and species of GD(III) and epoxy resin/polymer. The requirement for affirmation of this election is noted by the Applicants and such election is therefore confirmed.

It is apparent that the classification procedure in the USPTO failed to notice the key claim limitation bearing upon the *magnetic properties* of the composition. The classification process apparently focused upon the phrase “amorphous composition” with the effect of conferring distinction upon species that differ as plastic, epoxy or glass in recognition of some compositional distinction. Such compositional distinction is irrelevant to the significant aspect of the claim: that the magnetic properties of the claimed composition has a *selected value at cryogenic temperatures*. While the title and the abstract may not be given limiting significance, still, the subject matter of the claims is better illuminated by consulting these required components of the patent application. Even the briefest of consideration would emphasize that it is the magnetic properties of the claimed composition in a particular temperature region, and not the specific amorphous character of the composition that is relevant. The species enumerated in these dependent claims are clearly generic to the concept of an NMR apparatus employing structure that does not distort the measurement process.

MPEP 806.4(f) recites that “Claims to be restricted to different species must be mutually exclusive”. A “general” test is there described as “one claim recites limitations which under the disclosure are found in a first species but not in a second, while a second claim recites; limitations disclosed only for the second species and not the first.” The requirement for restriction does not meet this test.

MPEP 806.4(h) asserts that “Restriction should not be required if the species claimed are considered clearly unpatentable over each other.” These species claims do not meet this test.

Applicants respectfully request to withdraw the restriction requirement.

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**Claims Rejection**

Claims 1-4,6-15 stand rejected under §102(b) and separately under §102(a/e) and under three separate references and claims 3 and 13 are rejected per section 103 as discussed.

For clear emphasis, the phrase "for use in magnetic resonance apparatus" is added to claim 1 because the magnetic property limitation of claim 1 has apparently been ignored by the Office in its initial considerations.

**Rejections per §102**

Pursuant to §102(b), claims 1-2, 4, and 14-15 were rejected on Halverson, US patent 3,377,292, of record. Claim 1 contains the limitation that the composition exhibit a selected value. The Examiner has chosen to ignore the word "selected" and leaves applicant to assume that the Examiner concludes the composition will exhibit some arbitrary value of magnetic susceptibility and that any such value is tantamount to a "selected" value. While that position is clearly erroneous, Applicants propose to address claim 1 with amendment of sufficient specificity to remove unnecessary complication of prosecution. First of all, a minor change is proposed in reference to the magnetic susceptibility rather than the induced magnetization. The susceptibility is a *property* of the material whereas the induced magnetization is the extrinsic effect of the susceptibility and the behaviour of the material in an external magnetic field. See equation 1, page 1. This change is merely for the purpose of a consistent and precise description.

The critical limitation remains in the *selected* nature of the magnetic properties of the composition. In particular reference to "one aspect of the invention", attention is directed to P. 9, lines 23-24 where the value "zero (or nearly zero)" is where "the magnetic moment of the two materials cancel each other". P.9 lines 18-22; p. 3, lines 30-31; p.5, lines 8-15. A second aspect of the invention is stated as preparation of a composition exhibiting a selected value. P.9, line 23-24; p. 7, line 24- 32; p.6, lines 11-17. The temperature limitation is already specified as "cryogenic" and the term is defined at p.4, line 6-10; p.10, lines 13-15.

The Halverson reference is manifestly non-anticipatory and irrelevant. Indeed, the Halverson reference is entirely concerned with luminescence and there is no indication in this reference for any consciousness of magnetic properties for the subject matter. The Examiner has ignored the notion of a selected value, or any value for magnetic susceptibility. Applicants have

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offered amendment stating "used in magnetic resonance apparatus" to provide an emphasis. Such emphasis is not required for establishing patentability, nor to overcome any prior art.

Independent claim 11, rejected on Halverson, specifies preparation "so that the resulting composition has a nearly zero magnetic susceptibility at said cryogenic temperatures." The reference is absolutely silent on the matter of magnetic susceptibility. The reference is manifestly non-anticipatory and should be withdrawn.

Claims 1-3, 6-13 and 15 were rejected under §102 (e/a) on Hofacker et al, US 2003/0125576. The slightly different focus, from Examiner's paragraph 1, on claims (e.g., dependent claims 3 and 13 and 14) does not offer any additional support for any form of anticipation. Invocation of §102 (e/a) demands that all elements of the relevant claim be addressed by the Examiner and demonstrably appear in the alleged anticipatory reference. Here again, the reference utterly fails the test. This reference contains no indication of any value for the magnetic susceptibility of the reference compositions. Again, claim 1, as filed, requires a selected value for magnetic susceptibility. The '576 reference offers nothing to meet this limitation. The reference is manifestly non-anticipatory.

Claims 1, 4, 7-11 and 14-15 stand rejected under §102(b). The selection of claims attacked on this reference appear to differ from the Examiner's paragraphs 1 and 2. Dependent claims 8, 9 are clearly outside of the reference, which has no content whatsoever regarding particular magnetic properties at any temperature, much less at cryogenic temperatures. The reference does not provide any support for the rejection.

### Rejection per §103

This rejection rests upon a combination of the Halverson reference with a paper by Zheng, et al. The rejection might be appropriate to a combination if the Zheng reference brought to the combination some relevant material regarding the physical properties of magnetization and magnetic susceptibility at cryogenic temperatures. The combination is wholly silent on this defining limitation. The combination simply refers to a region of the periodic table. This is merely a "chemical" attribute whereas the critical aspect of this entire work, and so stated in the claims are the *magnetic* properties of the composition. Applicants procedure has been to locate some composition that would provide the required magnetic properties for the structural

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members of an NMR apparatus at cryogenic temperatures. The classification procedure of the USPTO has focused entirely on the phrase "composition of matter" and ignored the salient limitation of magnetic properties at cryogenic temperatures, as has the Examiner.

The combination does not support the rejection.

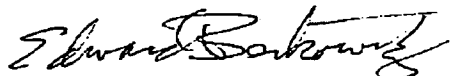
**Amendment to clarify**

Claim 7 has been amended to more clearly state the situation described at p. 6, lines 8-17, P.7, line 20 – 32.

**Conclusion**

The references of record are distinguished and the amended claims are properly in condition for allowance. The species required for non-elected status should be allowed as proper dependencies of allowable claims. Allowance is respectfully requested, or in the alternative, additional search and examination directed to relevant limitations.

Respectfully submitted,



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